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DRAFT #2 - Nuclear Decommissioning Citizens Advisory Panel - DRAFT #2
2016 Annual Report to the Governor of Vermont and
the Energy Committees of the General Assembly

I. Background and Statutory Authority

The nineteen member Nuclear Decommissioning Citizens Advisory Panel (NDCAP) was established under 18 V.S.A. Chapter 34 passed in the 2014 legislative session.

The members of the Nuclear Decommissioning Citizens Advisory Panel in 2016 were:

- the Secretary of Human Services designee; **Dr. William Irwin**
- the Secretary of Natural Resources designee; **Deputy Secretary Trey Martin***
- the Commissioner of Public Service, ex officio; **Commissioner Chris Recchia**
- the Secretary of Commerce and Community Development, ex officio; **Secretary Patricia Moulton***
- one member of the House Committee on Natural Resources and Energy, chosen by the Speaker of the House; **Representative Michael Hebert**
- one member of the Senate Committee on Natural Resources and Energy, chosen by the Committee on Committees; **Senator Mark MacDonald**
- one representative of the Windham Regional Commission or designee, selected by the Regional Commission; **Executive Director Chris Campany**
- one representative of the Town of Vernon or designee, selected by the legislative body of that town; appointed is **Stephen Skibniowsky**
- six members of the public, two each selected by the Governor, the Speaker of the House, and the President Pro Tempore of the Senate. Under this subdivision, each appointing authority initially appointed a member for a three-year term and a member for a four-year term: **Kate O'Connor (4), Martin Langeveld (3), Jim Matteau (4), Jim Tonkovich (3), David Deen (4), Derrik Jordan (3)** Subsequent appointments under this subdivision shall be for terms of four years.
- two representatives of the Vermont Yankee Nuclear Power Station (VYNPS or Station) selected by the owner of the Station; **Christopher J. Wamser***, Site Vice-President and **Paul Paradis***, Decommissioning Director, ENVY
- a representative of the International Brotherhood of Electric Workers (IBEW) selected by the IBEW who shall be a present or former employee at the VYNPS; **David Andrews**
- one member who represents collectively the Towns of Chesterfield, Hinsdale, Richmond, Swanzey, and Winchester, New Hampshire, when selected by the Governor of New Hampshire at the invitation of the Commissioner of Public Service;

1 **Diane Becker**, Chief of Technological Hazards, New Hampshire Emergency
2 Management and Homeland Security and

- 3 • one member who represents collectively the Towns of Bernardston, Colrain, Gill,
4 Greenfield, Leyden, Northfield, and Warwick, Massachusetts, appointee is MA
5 **Representative Paul W. Mark** (2nd Berkshire District of the MA State Legislature)

6
7 *Four Panel members resigned and their replacements appointed: **George Desch**, Deputy
8 Commissioner, Vermont Department of Environmental Conservation, filled the seat vacated
9 by Trey Martin; **Lucy Leriche**, Secretary, Vermont Agency of Commerce and Community
10 Development, filled the seat vacated by Patricia Moulton; **John Boyle**, Decommissioning
11 Director, ENVY, filled the seat vacated by Chris Wamser; **Mike McKenney**, Technical
12 Coordinator, ENVY, filled the seat vacated by Paul Paradis.

15 **II. NDCAP Statutory Duties and Other Provisions of the Charter**

16
17 The Panel serves in an advisory capacity. The duties of the Panel as outlined by the statute
18 are:

- 19 • To hold a minimum of four public meetings each year for the purpose of discussing
20 issues relating to the decommissioning of the Vermont Yankee Nuclear Power
21 Station (VYNPS). The Panel may hold additional meetings;
- 22 • To advise the Governor, the General Assembly, the agencies of the State, and the
23 public on issues related to the decommissioning of the VYNPS, with a written report
24 being provided annually to the Governor and to the energy committees of the
25 General Assembly;
- 26 • To serve as a conduit for public information and education and to encourage
27 community involvement in matters related to the decommissioning of the VYNPS;
- 28 • To receive written reports and presentations on the decommissioning of the Station
29 at its regular meetings;
- 30 • To periodically receive reports on the Decommissioning Trust Fund and other funds
31 associated with decommissioning of or site restoration at the VYNPS, including fund
32 balances, expenditures made, and reimbursements received;
- 33 • To receive reports regarding the decommissioning plans for the VYNPS, including
34 any site assessments and post-shutdown decommissioning assessment reports;
35 provide a forum for receiving public comment on these plans and reports; and
- 36 • To provide comment on these plans and reports as the Panel may consider
37 appropriate to State agencies, the owner of the VYNPS and in the annual report.

38
39 The Charter can be found in **Appendix A**.

III. Meeting of the NDCAP

The NDCAP held eight meetings in 2016 on January 28, February 25, March 24, May 26, June 23, September 22, October 27, and December 1. All meetings were open to the public and opportunities for comments from the public were provided. The minutes of each meeting can be found on the Public Service Department website at www.publicservice.vermont.gov. A video of each meeting can be found at www.brattleborotv.org (Note: The January 28, 2016 meeting was not video recorded). Key decisions and topics of each meeting are summarized below and in subsequent sections of this report.

January 28, 2016

- ***Entergy Update on Decommissioning Activities.*** Joe Lynch, Government Affairs Manager, Entergy Vermont Yankee, provided an update on decommissioning activities. Entergy continues to be in the process of upgrading and laying up some of the systems used to operate the plant, i.e.; removing fluid from and protecting the systems from freezing. Entergy's application for a Certificate of Public Good to construct a second Independent Spent Fuel Storage Installation (ISFSI – dry cask storage pad) on the VY site is still making its way through the Public Service Board process. If approved construction of the second ISFSI will begin in May 2016. In December 2015, the NRC approved the Permanently Defueled E-Plan and Emergency Action Levels that will be in effect from April 2016 until all the fuel is in dry cask storage.
- ***State of Vermont Update on Decommissioning Activities.*** Anthony Leshinskie, Vermont State Nuclear Engineer, provided the State's update on recent activities. The State has three ongoing filings with the Nuclear Regulatory Commission regarding: (1) The termination of the State's access to the Emergency Response Data System (ERDS); (2) The valid uses of the VY Decommissioning Trust Fund; and (3) The reduction of the Emergency Planning Zone (EPZ) to the VY fence line.
- ***Presentation on Groundwater.*** Marjorie Gale, Vermont State Geologist; Patrick Parenteau, Professor of Law, Vermont Law School; Rep. David Deen; George Desch, Deputy Commissioner, Vermont Department of Environmental Conservation; and Dr. William Irwin, Radiological and Toxicological Sciences Chief, Vermont Department of Health, gave a presentation on groundwater monitoring – the rule, the science, and the public trust doctrine.
- ***Leadership Selection:*** Kate O'Connor was elected chair. Martin Langeveld was elected vice chair.

1 **February 26, 2016**

- 2 • ***Entergy Update on Decommissioning Activities.*** Joe Lynch, Government Affairs
3 Manager, Entergy Vermont Yankee, provided an update on recent activities. The
4 NRC completed fourth quarter inspections with no findings or violations. Entergy
5 addressed media reports of water being stored in swimming pools in the turbine
6 building at the VY site. A comprehensive water management plan is in place
7 designed to reduce groundwater intrusion in the turbine building and dispose of
8 current on-site water in a safe, cost effective manner. The increase in groundwater
9 since shutdown, while expected, created water management challenges resulting in
10 temporary storage of water. Various options to minimize the intrusion of
11 groundwater have been looked at: sealing of floor pumps, joints and flaws in
12 concrete structure; installing intercept well(s) inside turbine building to redirect
13 water away from building. Entergy has contracted with EnergySolutions to ship the
14 water to a licensed disposal site in Tennessee. First shipment week of February
15 22nd. Plan to ship 10,000 to 20,000 a week. Entergy and the state of Vermont's
16 Agency of Natural Resources and Department of Health are working together on this
17 issue.
- 18 • ***State of Vermont Update on Decommissioning Activities.*** Anthony Leshinskie,
19 Vermont State Nuclear Engineer, provided the State's update on recent activities.
20 The High Level Radiation Waste Transportation Task Force is examining efforts on
21 rail transportation, route selection and transportation guidelines. Department of
22 Energy representatives have been on site to evaluate VY for rail transport.
- 23 • ***Advisory Opinion on Certificate of Public Good on the Second Independent Spent***
24 ***Fuel Storage Installation Pad (ISFSI).*** The Panel adopted an advisory opinion, "A
25 *Second Independent Spent Fuel Storage Installation Storage Pad Should Be*
26 *Constructed in the Location Currently Proposed by Entergy Vermont Yankee.*" The
27 Panel reached consensus on everything in the opinion with the exception of one
28 Recommendation. In the end, two version of the Recommendation were drafted and
29 sent to the Public Service Board.

30
31 **March 26, 2016**

- 32 • ***Entergy Update on Decommissioning Activities.*** Joe Lynch, Government Affairs
33 Manager, Entergy Vermont Yankee, provided an update on recent activities. The
34 Emergency Plan is now transitioning and training for Permanently Defueled E-Plan
35 and Emergency Action Levels (EALs) stages. Events at the site after April 19, 2016
36 will only require them to be at an unusual or alert level. Entergy will be removing
37 23 of 37 sirens located in towns within the EPZ which are no longer needed. On
38 March 14, 2016 Entergy had a security base line inspection, where they simulate

1 intrusion incidents to respond to. The results of that inspection had no findings or
2 violations.

- 3 • ***Presentation on Water Management Issues on Vermont Yankee Site.*** Joe Lynch,
4 Government Affairs Manager, Entergy Vermont Yankee, gave an update on Entergy's
5 efforts to manage groundwater intrusion on the VY site. Entergy formed a team of
6 industry experts with decommissioning and groundwater experience to help solve
7 the problem. All temporary storage pools have been drained or removed; water is
8 currently stored in either industrial bladders inside the turbine building or "frac"
9 tanks outside the building. Groundwater continues to be shipped to a licensed
10 disposal facility in Tennessee by EnergySolutions. Thirty thousand gallons have
11 been shipped since February. In addition to groundwater, the focus will shift to
12 process water – water previously used in the plant systems during the operation of
13 VY with higher contaminant levels. Process water is stored in the torus and various
14 systems still in use at the plant. Ten thousand gallons of process water has been
15 shipped to date. There is no health and safety impact to public or VY employees.
- 16 • ***Presentation on Shipment and Disposal of Groundwater.*** Mark Walker, Vice
17 President, EnergySolutions, based in Salt Lake City, Utah, made a presentation about
18 the company and the services it is providing to Vermont Yankee.
- 19 • ***State of Vermont Comments on Water Management Issues at Vermont Yankee.***
20 Trey Martin, Deputy Secretary, Vermont Agency of Natural Resources, spoke on
21 behalf of the State. There has been a commitment by the State and Entergy to
22 regular communication about the water management issue.
- 23 • ***Federal Taxation of Decommissioning Trust Funds.*** Panel member Martin
24 Langeveld questioned why the federal government taxes decommissioning trust
25 funds and whether there is some action the Panel should take to call attention to the
26 issue. Joe Lynch, Government Affairs Manager, Entergy Vermont Yankee, will look
27 into the issue and report back at a future meeting.
- 28 • ***Public Access to NDCAP Meetings.*** A question arose at the February meeting about
29 the use of the remote call-in option at Panel meetings. After a brief discussion, a
30 committee was formed to develop a policy regarding public access to NDCAP
31 meetings. The committee will meet and report back with a recommendation at the
32 May meeting. Committee members: Kate O'Connor, David Andrews, Jim Tonkovich,
33 Chris Campany.

34 35 **May 26, 2016**

- 36 • ***Entergy Update on Decommissioning Activities.*** Joe Lynch, Government Affairs
37 Manager, Entergy Vermont Yankee, provided an update on recent activities. On April
38 19, 2016, Vermont Yankee implemented the Permanently Defueled Emergency Plan
39 and Emergency Action Levels. Emergency Planning Zone was reduced to the

1 boundaries of the VY site. Water continues to come into the plant through
2 groundwater and seepage. Since February, 115,000 gallons of intrusion
3 groundwater and 19,500 gallons of process water have been shipped offsite for
4 disposal. Comprehensive water management plan is being implemented to reduce
5 intrusion water and optimize disposal of water into the future. NRC routine
6 inspections continue. One violation was found in the first quarter of 2016. The
7 violation noted Entergy's withdrawal of spent fuel management planning funds
8 from the Nuclear Decommissioning Trust prior to exemption approval. The NRC did
9 not issue enforcement action due to unclear NRC guidance. Fifteen members of the
10 U.S. Department of Energy (DOE) Nuclear Fuels Storage and Transportation
11 Planning Project (NFST) visited the Vermont Yankee site to view the rail
12 infrastructure. Entergy and Vernon reached a long-term property tax agreement.
13 Entergy will pay Vernon a total of \$3 million through FY 2022.

- 14 • ***Federal Taxation of Decommissioning Trust Funds.*** Joe Lynch, Government
15 Affairs Manager, Entergy Vermont Yankee, provided information on the history of
16 the federal taxation of nuclear decommissioning trust funds (NDT). NDTs of public
17 power utilities are not subject to taxation. Private utilities are treated as
18 corporations, therefore, are subject to federal taxation. Congress set the tax rate for
19 trust funds in the 1992 Energy Policy Act. Under the federal guidelines, the net
20 earnings in the Vermont Yankee Nuclear Decommissioning Trust Fund are taxed at
21 20 percent. For the ten year period between 2005 and 2014, the Vermont Yankee
22 trust fund paid \$34 million in federal income tax.
- 23 • ***Advance Notice of Proposed Rulemaking (ANPR) for the Decommissioning of***
24 ***Power Reactors and Presentation on State of Vermont Comments.*** Tony
25 Leshinskie, State Nuclear Engineer; Erica Bornemann, Chief of Staff, Vermont
26 Division of Emergency Management and Homeland Security; Dr. William Irwin,
27 Radiological and Toxicological Sciences Chief, Vermont Department of Health; and
28 Jen Duggan, General Counsel, Vermont Agency of Natural Resources, presented the
29 comments the State of Vermont submitted to the Nuclear Regulatory Committee
30 about the ANPR.
- 31 • ***Public Access to NDCAP Meetings.*** At the March meeting a committee was formed
32 to recommend a policy regarding public access to NDCAP meetings. The committee
33 (Kate O'Connor, David Andrews, Jim Tonkovich, Chris Campany) recommended and
34 the Panel approved adding the following language to the Charter: "In order to serve
35 as a conduit for public information and education on and to encourage community
36 involvement in matters related to the decommissioning of the Vermont Yankee
37 Nuclear Power Station, the Vermont Nuclear Decommissioning Citizens Advisory
38 Panel (VND CAP) will make reasonable accommodations to facilitate access to Panel
39 meetings by those who are unable to attend in person. This may include live

streaming of meeting audio via the internet, access by conference phone, or similar means.”

June 23, 2016

- ***Entergy Update on Decommissioning Activities.*** Joe Lynch, Government Affairs Manager, Entergy Vermont Yankee, gave an update on recent activities. The amount of groundwater entering the turbine building has been reduced by approximately one-third, but still enters the plant at a rate of 900 gallons per day. Since February, 183,000 gallons of intrusion groundwater and 19,500 gallons of process water has been shipped off site. On June 23, 2016, the NRC denied the State of Vermont’s appeal for a hearing request on the Permanently Defueled Emergency Plan (DPEP); and denied the State’s petition for reconsideration of NRC’s approval of exemptions from certain emergency planning regulatory requirements. On June 17, 2016, the Public Service Board (PSB) issued the Certificate of Public Good (CPG) and Order approving the installation of the second ISFSI (dry cask storage pad) and emergency diesel generator on the VY site. Decision will allow Entergy to achieve its goal of transferring all spent fuel from the spent fuel pool to dry casks by the end of 2020.
- ***Vermont Congressional Delegation Update on Federal Nuclear Issues.*** George Twigg, State Director for Cong. Peter Welch and Haley Pero, Outreach Staff for Sen. Bernie Sanders provided an update on the nuclear power-related issues Congress is working on.
- ***State of Vermont Overview of Environmental and Health Regulations Impacting Vermont Yankee.*** George Desch, Deputy Commissioner, VT Department of Environmental Conservation, presented an overview of Vermont’s environmental regulations. Dr. William Irwin, Radiological and Toxicological Sciences Chief, Vermont Department of Health, presented an overview of the Department of Health Radiological Health Rule.

September 22, 2016

- ***Entergy Update on Decommissioning Activities.*** Joe Lynch, Government Affairs Manager, Entergy Vermont Yankee, provided an update on recent activities. The NRC conducted an on-site inspection that included radioactive waste handling and Spent Fuel Pool safety the week of August 29, 2016. No issues or potential violations were identified. Entergy and the Vermont Division of Emergency Management and Homeland Security entered into a two-year budget agreement through which Entergy will provide \$300,000 a year for EP funding through FY2018. Entergy listed its Brattleboro real estate property for sale and announced an auction of equipment on September 28 and September 29, 2016.

- 1 • ***Entergy Update on Water Management Issues at Vermont Yankee.***
2 Mike McKenney, Technical Coordinator, Entergy Vermont Yankee provided an
3 update on the water management activities at VY. Groundwater intrusion was
4 anticipated, but not at the volumes experienced since the shutdown. All temporary
5 storage pools have been drained and removed; water is stored in one metal “frac”
6 tank outside the turbine building. Groundwater is being shipped by EnergySolutions
7 to a disposal site in Tennessee. Strategies to reduce intrusion rates are in progress.
- 8 • ***State of Vermont Presentation on Radiological Emergency Response Plan.***
9 Scott Carpenter, Planning Section Chief, Division of Emergency Management and
10 Homeland Security, provided an update on the emergency response plan.

11 12 **October 26, 2016**

- 13 • ***Entergy Update on Decommissioning Activities.*** Joe Lynch, Government Affairs
14 Manager, Entergy Vermont Yankee, provided an update on recent activities. Third
15 quarter 2016 NRC Integration Report issued with no findings or violations
16 indentified. Since February, 365,000 gallons of groundwater have been shipped to a
17 licensed disposal site in Tennessee.
- 18 • ***State of Vermont Update on Decommissioning Activities.*** Anthony Leshinskie,
19 Vermont State Nuclear Engineer, provided the State’s update on recent activities.
20 The NRC denied the state of Vermont’s request for a hearing on the valid uses of the
21 VY Decommissioning Trust Fund (DTF). Briefings between Entergy, state nuclear
22 engineer, Vermont Department of Health, Agency of Natural Resources on VY site
23 groundwater management continue.
- 24 • ***Presentation on the Decommissioning of the Yankee Rowe Nuclear Power Plant***
25 ***in Rowe, Massachusetts.*** David Howland, Regional Engineer at the Massachusetts
26 Department of Environmental Protection, briefed the Panel on the issues
27 Massachusetts faced during the decommissioning of the Rowe plant.

28 29 **December 1, 2016**

- 30 • ***Entergy and NorthStar Presentation on Proposed Sale of Vermont Yankee.*** T.
31 Michael Twomey, Vice President of External Affairs for Entergy Wholesale
32 Commodities, and Scott State, Chief Executive Officer of NorthStar Services Group,
33 Inc., made a presentation about the proposed sale of Entergy Nuclear Vermont
34 Yankee (ENVY) to NorthStar Group Services, Inc. (See **Section V** from more
35 information)
- 36 • ***Entergy Update on Decommissioning Activities.*** Joe Lynch, Government Affairs
37 Manager, Entergy Vermont Yankee, provided an update on recent activities. Water
38 Management Program continues. Modifications to seismic gap have resulted in a

1 reduction in intrusion water – estimated reduction from 900-1,000 gallons/day to
2 400-500 gallons/day. Since February, 394,000 gallons have been shipped offsite.

3 4 5 **IV. Major Milestones and Activities at the Vermont Yankee Site**

- 6
- 7 • January 20, 2016 - 4th quarter 2015 NRC Decommissioning Power Reactor
- 8 Inspection meeting. No findings or violations indentified.
- 9 • February 1, 2016 - NRC conducted scheduled inspection of decommissioning
- 10 activities.
- 11 • February 22, 2016 - First shipment of groundwater (~5,000 gallons) shipped to
- 12 licensed disposal site in Tennessee by EnergySolutions.
- 13 • March 14-18, 2016 - NRC security baseline inspection with no findings or violations.
- 14 • March 28, 2016 - Inspection of decommissioning activities conducted. **WHO?
- 15 • April 19, 2016 - Implementation of Permanently Defueled E-Plan and Emergency
- 16 Action Levels.
- 17 • May 4, 2016 - NRC 1st Quarter Inspection Report received. One (1) SL IV Violation
- 18 (lowest level) noted withdrawing spent fuel management planning funds from the
- 19 NDT prior to exemption approval, but NRC refrained from issuing enforcement
- 20 action because of unclear NRC guidance.
- 21 • May 5, 2016 - Transition to SAFSTOR II and employee separation.
- 22 • May 10, 2016 - Fifteen members of the U.S. Department of Energy (DOE) Nuclear
- 23 Fuels Storage and Transportation Planning Project (NFST) visit VY site.
- 24 • May 16, 2016 - NRC inspection conducted with inspection scope informed by the
- 25 NRC Decommissioning Program. No issues or potential violations identified.
- 26 • June 17, 2016 - VT Public Service Board issues Certificate of Public Good and Order
- 27 approving the installation of a second ISFSI pad and emergency diesel generator at
- 28 VY site.
- 29 • July - Construction begins on second ISFSI (dry cask storage pad).
- 30 • August 29, 2016 - NRC inspection conducted, including radioactive waste handling
- 31 and Spent Fuel Pool Safety. No issues or potential violations identified.
- 32 • September - Installation of new 200kW Security Diesel Generator on VY site.
- 33 • September - ENVY Brattleboro properties listed for sale.
- 34 • September 28-29 - ENVY equipment and inventory auction.
- 35 • October 14, 2016 - VT Agency of Natural Resources visits site to review hazmat
- 36 storage and North Warehouse conditions.
- 37 • November 8, 2016 - Entergy announces proposed sale of Entergy Nuclear Vermont
- 38 Yankee (ENVY) to NorthStar Group Services.

- December 16, 2016 - Entergy and NorthStar file joint petitions with the Vermont Public Service Board seeking approval of proposed sale of ENVY.

V. Proposed Sale of Entergy Nuclear Vermont Yankee

On November 8, 2016, Entergy Corp announced an agreement to sell Entergy Nuclear Vermont Yankee (ENVY) and transfer the U.S. Nuclear Regulatory Commission Licenses to subsidiaries of NorthStar Group Services, Inc. to accelerate decommissioning and site restoration by decades. The sale of ENVY is subject to closing conditions, including approval by the NRC and the Vermont Public Service Board. The companies anticipate that the transaction will close by the end of 2018.

On December 1, 2016, T. Michael Twomey, Vice President of External Affairs for Entergy Wholesale Commodities, and Scott State, Chief Executive Officer of NorthStar Services Group, Inc., made a presentation before the Nuclear Decommissioning Citizens Advisory Panel on the proposed sale of Vermont Yankee. The presentation can be found at [\[LINK\]](#).

On December 16, 2016, Entergy and NorthStar Group Services filed a joint petition with the Vermont Public Service Board (PSB) for a Certificate of Public Good (CPG) for the sale of Entergy Nuclear Vermont Yankee. The Public Service Board filing can be found at [\[LINK\]](#).

According to the PSB filing, NorthStar, a U.S. dismantling and remediation company based in New York, is partnering through a subsidiary with AREVA, Waste Control Specialists and Burns & McDonnell to perform specialized services drawing on each company's core competencies.

Under Entergy's original schedule, Entergy expected to initiate decontamination and dismantlement in 2068, with projected completion of both decommissioning and site restoration by 2075. Under the agreement with Entergy, NorthStar has committed to initiate decontamination and dismantlement by 2021 and maybe as early as 2019. NorthStar will complete decommissioning and restoration of the Vermont Yankee site (with the exception of the ISFSI) no later than the end of 2030 and potentially as early as 2026.

Thereafter, NorthStar will continue to operate and maintain the ISFSI until the U.S. Department of Energy fulfills its statutory and contractual obligations to remove all of the spent nuclear fuel from Vermont Yankee. NorthStar will then decommission the ISFSI, terminate the NRC license, and complete site restoration.

NorthStar estimates that costs for decommissioning and license termination are \$511,124,040; spent fuel management are \$287,802,112; and site restoration are \$12,598,000.

In addition to PSB approval, the license transfer must be approved by the Nuclear Regulatory Commission. A public pre-submittal meeting will be held at NRC Headquarters in Rockville, Maryland on January 24, 2017.

VI. Nuclear Decommissioning Trust Fund

The balance in the Vermont Yankee Nuclear Decommissioning Trust (NDT) Fund as of January 1, 2016 was **amount**. As of December 31, 2016 the fund total was **amount**. The fund was reduced by **amount** million: Entergy withdrew **amount** million in 2016, trust expenses (i.e. mostly taxes - local, state and federal) further decreased the fund by **amount** million and investment income increased it by **amount** million. The estimated cost of decommissioning was \$1.242 billion in 2014 dollars.

Note:

Entergy estimates that decommissioning costs will be \$1.242 billion (in 2014 dollars) under their original plan for a **2068 or 2075** completion date. (Which date is correct?)

NorthStar estimates that decommissioning costs will be **\$798,926,152 or \$811,524,153** (in 2016 dollars) under their plan for a **2030** completion date. (Correct date and amount?)

VII. Certificate of Public Good for the Construction of a Second ISFSI (Dry Cask Storage Pad) at the Vermont Yankee Site

On June 17, 2016, the Vermont Public Service Board (PSB) issued a Certificate of Public Good (CPG) and Order approving the installation of a second ISFSI (dry cask storage pad) and related improvements, including the installation of a new diesel generator, at the Vermont Yankee site. Fifty-eight casks will be needed to store all the spent nuclear fuel from Vermont Yankee's operating life. Under the CPG, Entergy will build a second pad, adjacent to the first, to hold twenty-two casks. Construction of the pad will be completed in 2017.

VIII. Transfer of Spent Nuclear Fuel at Vermont Yankee

On November 8, 2016, Entergy announced plans to accelerate the transfer of all spent nuclear fuel to dry cask storage at Vermont Yankee from the original completion date of 2020 to 2018. Holtec International, the manufacturer of the dry storage systems used at Vermont Yankee, submitted license amendment requests to the NRC, which if approved, will support complete transfer of all of Vermont Yankee's spent nuclear fuel to dry cask storage by the end of 2018

IX. Water Management Program at Vermont Yankee

In February 2016, it came to the public's attention through press reports that water was being stored in swimming pools in the turbine building at Vermont Yankee. Entergy outlined their water management program at the February NDCAP meeting and provided regular updates throughout 2016.

The increase in groundwater intrusion since the plant shutdown, while expected, created water management challenges that lead to the need for temporary storage of water. Various options were evaluated to minimize the intrusion of groundwater into the buildings, including sealing of floor sumps, joints and flaws in the concrete structure. The feasibility of installing intercept well(s) inside the turbine building to redirect groundwater away from the building was evaluated

Water Storage Action Plan: Entergy contracted with EnergySolutions, based in Salt Lake City, Utah, to ship the groundwater to a licensed disposal site in Tennessee. By December 2016, 394,000 gallons had been shipped offsite.

By March 2016, all temporary storage pools had been drained and removed. As of December, intrusion water was being stored in one metal "frac" tank outside the turbine building. In-leakage prevention projects have resulted in a reduction in intrusion water – estimated reduction from 900-1,000 gallons/day to 400-500 gallons/day.

The Vermont Agency of Natural Resources, Health Department and Entergy conduct weekly briefings to make sure there's open communication and transparency on the water management issue.

X. Advisory Opinion on CPG for Second Dry Cask Storage Pad at Vermont Yankee

The Nuclear Decommissioning Citizens Advisory Panel was created under 18 V.S.A. Chapter 34 in 2014. The statute authorizes the Panel to "*advise the Governor, the General*

1 *Assembly, the agencies of the State, and the public on issues related to the decommissioning*
2 *of the VYNPS . . .” and “receive reports regarding the decommissioning plans for the VYNPS,*
3 *including any site assessments and post-shutdown decommissioning assessment reports . . .*
4 *and to provide comment on these plans and reports as the Panel may consider appropriate to*
5 *State agencies and the owner of the VYNPS and in the annual report described in subdivision*
6 *(2) of this section.”*
7

8 On February 25, 2016, the Panel approved an advisory opinion: “*A Second Independent*
9 *Spent Fuel Storage Installation Storage Pad Should Be Constructed in the Location Currently*
10 *Proposed by Entergy Vermont Yankee.*” The opinion was sent to the Vermont Public Service
11 Board.
12

13 The Advisory Opinion can be found in **Appendix B**
14

15 **XI. Nuclear Regulatory Commission Advance Notice of Proposed Rulemaking**

16

17 On November 19, 2015, the Nuclear Regulatory Commission published an advance notice
18 of proposed rulemaking (ANPR) – the first step toward developing clear requirements for
19 the decommissioning of nuclear power reactors. The NRC anticipates that the rulemaking
20 process will be completed in 2019. The NRC accepted public comments on the ANPR
21 through March 18, 2016.
22

23 The Vermont Public Service Department, Health Department, Agency of Natural Resources,
24 Department of Emergency Management and Homeland Security, and Attorney General,
25 along with the Attorneys General of Connecticut, Massachusetts and New York submitted
26 comments to the NRC. The State’s comments can be found at **[LINK]**
27

28 The six citizen members of the NDCAP (David Deen, Derrik Jordan, Martin Langeveld, Jim
29 Matteau, Kate O’Connor, and Jim Tonkovich) submitted comments to the NRC. (Comments
30 can be found in **Appendix C**). On March 15, 2016, Kate O’Connor testified before the
31 Nuclear Regulatory Commission during a public meeting on the proposed rulemaking at
32 the NRC Headquarters in Rockville, MD. (Testimony can be found in **Appendix D**).
33

34 **XII. Vermont Congressional Delegation**

35

36 Representatives of Senator Patrick Leahy, Senator Bernie Sanders, and Congressman Peter
37 Welch attended NDCAP meetings in 2016. The Panel received a federal update at the June
38 23, 2016 meeting from George Twigg, State Director for Cong. Welch and Haley Pero,
39 Outreach Staff for Sen. Bernie Sanders. The citizen members of the Panel met with Cong.

1 Peter Welch in Brattleboro on February 17, 2016, to share local concerns, including the
2 long-term storage of spent fuel at the Vermont Yankee site.

3 4 **XIII. The Issues Committee of NDCAP**

5 The Issues Committee, formed in 2015 to make recommendations on topics for discussion
6 at NDCAP meetings, met three times in 2016. Members of the committee: David Andrews,
7 Chris Campany, Martin Langeveld, Jim Matteau, Kate O'Connor and Jim Tonkovich.

8 9 **XIV. NDCAP Charter Amendment**

10
11 *Public Access to NDCAP Meetings.* The Panel approved amending the Charter by adding the
12 following language to Section IV "Meetings": "In order to serve as a conduit for public
13 information and education on and to encourage community involvement in matters related
14 to the decommissioning of the Vermont Yankee Nuclear Power Station, the Vermont
15 Nuclear Decommissioning Citizens Advisory Panel (VNDCAP) will make reasonable
16 accommodations to facilitate access to Panel meetings by those who are unable to attend in
17 person. This may include live streaming of meeting audio via the internet, access by
18 conference phone, or similar means."

19 20 **XV. Financial Needs of the NDCAP**

21
22 The Department of Public Service will continue to provide administrative and financial
23 support to the Panel. Entergy will continue to provide in-kind administrative support and
24 in-kind meeting resources (i.e. audio-visual equipment for presentations (laptop and
25 projector), microphones, copies of meeting materials, etc.). The Panel is currently
26 assessing what funds it may require from the State of Vermont to carry out its mission.

27 28 **XVI. Workplan for 2017**

29
30 The Panel reserved the option to meet monthly in 2017. The first meeting has been set for
31 Thursday, January 26 at the Brattleboro Area Middle School, Brattleboro, VT. Meetings
32 have tentatively been set for: February 23; March 23; April 27; May 25; June 22; July 27;
33 August 24; September 28; October 26; November 16; and December 21, 2017.

Appendix A

Vermont Yankee Nuclear Decommissioning Citizens Advisory Panel Charter Adopted February 26, 2015 Amended May 26, 2016

I. Purpose

The Vermont Yankee Nuclear Decommissioning Citizens Advisory Panel (NDCAP or Panel) is established pursuant to Title 18 of Vermont Statutes, Chapter 34, Sections 1700 -1702.¹ The NDCAP is to serve as a conduit for public information and education, to encourage open communication and community involvement in matters related to the decommissioning process of the Vermont Yankee Nuclear Power Station (VYNPS), and to receive written reports and presentations on the decommissioning of the Station at its regular meetings. The NDCAP shall advise the Governor, General Assembly, the agencies of the state, and the public on issues related to decommissioning. The Panel shall serve in an advisory capacity only and shall not have authority to direct decommissioning of the VYNPS. Although this charter expands on the language contained in the enabling statute, it is understood that the statute remains the ultimate authority.

II. Duties

Duties shall be:

- To receive written reports & presentations on the decommissioning at its regular meetings. The reports received by the NDCAP address decommissioning plans, including:
 - All Site Assessments
 - The Post-Shutdown Decommissioning Activities Report (PSDAR) and amendments
 - Periodic reports on the Decommissioning Trust Fund and other funds associated with Site Decommissioning and/or Site Restoration including fund balances, expenditures made & reimbursements received.
 - Any progress reports on decommissioning activities by Vermont Yankee as submitted to the Panel
- To provide a forum for receiving public comments on Vermont Yankee Decommissioning plans and reports
- To provide comments on plans and reports as the Panel may consider appropriate to the State Agencies and the Vermont Yankee owners
- To provide an annual report to the Governor & Energy Committees of the General

¹ <http://legislature.vermont.gov/statutes/fullchapter/18/034>

- Assembly due January 15, of the following year, which
- Includes comments on received Decommissioning Plans & Reports, as the Panel may consider appropriate.
 - Shall assess further changes to the Panel's membership or duties as appropriate.
 - Shall include recommendations on such changes.

III. Organization and Membership

A. Membership

- Secretary of Human Services or designee (ex officio)
- Secretary of Natural Resources or designee (ex officio)
- Commissioner of Public Service or designee (ex officio)
- Secretary of Commerce and Community Development or designee (ex officio)
- Representative of the Town of Vernon, selected by Vernon select board
- Six members of the public – two each appointed by the Governor, The Speaker, and the Senate President Pro Tem. Under this subdivision, each appointing authority initially shall appoint a member a three-year term and a member a four-year term. Subsequent appointments under this subdivision shall be for terms of four years;
- One representative of the Windham Regional Commission appointed by the Commission
- Two representatives of Vermont Yankee, selected by the owner of VYNPS
- One representative of the International Brotherhood of Electrical Workers (IBEW), selected by IBEW, who is a past or present employee at Vermont Yankee
- One member representing the towns of Chesterfield, Hinsdale, Richmond, Swanzey, and Winchester, NH, appointed by the Governor of NH
- One member representing the towns of Bernardston, Colrain, Gill, Greenfield, Leyden, Northfield, and Warwick, MA, appointed by the Governor of MA
- One member of the House Committee on Natural Resources and Energy, chosen by the Speaker of the House
- One member of the Senate Committee on Natural Resources and Energy, chosen by the Committee on Committees

B. Officers

- The NDCAP shall have a Chairperson and Vice-Chairperson or Co-Chairs elected by a majority vote of the Panelists.
- The Commissioner of the Public Service Department will serve as the Chair until the Panel elects a Chair or Co-Chairs.

- 1 • The Chair shall perform the following duties:
 - 2 ○ Call meetings of the NDCAP
 - 3 ○ Prepare and/or approve agendas for meetings
 - 4 ○ Preside at NDCAP meetings
 - 5 ○ Submit all recommendations adopted by the NDCAP to the Governor, legislature,
 - 6 state agencies and the plant owner
- 7 • Vice-Chairperson shall perform all the duties of the Chairperson in her/his absence.
- 8 • The term for the Chairperson and Vice-Chairperson or co-chairs will be one year, or as
- 9 otherwise determined by the Panel, but not for more than one year.

10
11 C. Term of Membership: Ex officio members shall serve for the duration of their time in
12 office or until a successor has been appointed. Members of the General Assembly shall be
13 appointed for two years or until their successors are appointed, beginning on or before
14 January 15 in the first year of the biennium. Representatives designated by ex officio
15 members shall serve at the direction of the designating authority.

16 D. Designees: Certain statutory positions on the Panel may to be represented by designees.
17 It is understood that the preference is for designees to serve on a permanent basis, and that
18 for the purposes of continuity, the use of alternates on a meeting-by-meeting basis is to be
19 avoided.

20 E. Reimbursement: Members of the NDCAP who are not ex officio members, employees of
21 the State of Vermont, representatives of the VYNPS, or members representing towns
22 outside Vermont, and who are not otherwise compensated or reimbursed for their
23 attendance shall be entitled to \$50.00 per diem and their necessary and actual expenses.
24 Funds for this purpose shall come from the monies collected under 30 V.S.A. section 22 for
25 the purpose of maintaining the Department of Public Service. Legislative members shall
26 not be entitled to a per diem under this section for meetings while the General Assembly is
27 in session.

28 F. Committees: Committees, sub-committees or similar working groups will be designated
29 by the Chairperson and Vice Chair or Co-Chairs as needed to carry out the work of the
30 NDCAP and may include designees who are not members of the Panel. Such committees,
31 sub-committees or working groups will serve at the discretion of the NDCAP as a whole.
32 Every effort should be made to appoint members of the committees who represent the
33 broad interests reflected on the NDCAP. Committees serve to support the NDCAP and may
34 not themselves take action other than to advise or report to the Panel. Committees may
35 seek participation by and presentation from other parties and the public. Committees of
36 the NDCAP are likewise subject to all provisions of the Vermont Open Meeting Law.

1 G. Administration

- 2 • The Public Service Department, the Agency of Human Services, and the Agency of
3 Natural Resources will furnish administrative support, with assistance from the owners
4 of the VYNPS as the Commissioner of the Public Service may consider appropriate.
5 • The Commissioner of Public Service shall manage administrative support to the Panel,
6 including:
7 ○ Manage administrative support including scheduling meetings and securing meeting
8 locations, providing public notice of meetings, producing minutes of meetings, and
9 assisting in the compilation and production of the Panel's annual report
10 ○ Inform Panel on status of decommissioning matters
11 ○ Timely notify Panel of new decommissioning information
12 ○ Upon request, provide all Panel members with all relevant information within
13 Public Service Department control.
14 ○ Provide workshops, training for Panel members, as appropriate.
15 ○ Hire experts, contract for services, and provide for materials and other reasonable
16 and necessary expenses of the Panel as the Commissioner may consider appropriate
17 on request of the Panel from time to time.
18

19 **IV. Meetings**

20 A. Frequency: The NDCAP will meet a minimum of four times a year, although additional
21 meetings can be called at the Chair's or Co-Chairs' discretion or by request of a minimum of
22 five of the NDCAP members via the Chair or Co-Chairs. Meetings will be announced a
23 minimum of two days in advance. The Chair, Co-Chairs, or at least five Panel members may
24 call a special meeting with a minimum of one day advance notice.

25 B. Agendas: The agenda will be drafted by the Chair and Vice-chair or Co-chairs with input
26 from other members. Issues brought before the NDCAP that are not on the meeting agenda
27 must be considered as the first item of business, and if discussed, any action should be
28 deferred to a later meeting unless urgent.
29

30 C. Quorum: A majority of members will constitute a quorum for a meeting of the NDCAP at
31 which a vote or other official action is to be taken. In the absence of a quorum, the NDCAP
32 may convene the meeting and adjourn until such time as a quorum is present. No official
33 action may be undertaken by the NDCAP at a meeting that lacks a quorum.

34 D. Virtual Meetings: As long as the requirements of the open meeting laws are met, the
35 Panel may conduct business and vote to take an action at a regular, special or emergency
36 meeting by electronic or other means without being physically present at a designated

meeting location. In this situation the Panel will follow all the requirements outlined in 1
V.S.A. § 312(a)(2).

E. Public Access: In order to serve as a conduit for public information and education on
and to encourage community involvement in matters related to the decommissioning of the
Vermont Yankee Nuclear Power Station, the Vermont Nuclear Decommissioning Citizens
Advisory Panel (VNDCAP) will make reasonable accommodations to facilitate access to
Panel meetings by those who are unable to attend in person. This may include live
streaming of meeting audio via the internet, access by conference phone, or similar means.”

V. Decision-making Process

A. The NDCAP will strive to reach consensus on key issues by conducting their
deliberations through dialogue and joint learning.² Consensus means that the group
strives to clarify disagreements and tries to work through them to reach agreement on
options that everyone can “live with.”³

B. To work towards consensus, the Panelists will:

- engage in a thoughtful, thorough deliberation
- advocate for the interests of his/her agency or constituency
- share relevant information with the other group members
- keep constituencies informed and advocate within constituent organizations for support of the group’s work
- keep the group informed about constituent perspectives
- work to identify promising and innovative options
- openly discuss and evaluate those options
- refrain from undermining group recommendations and reports

C. However, if consensus cannot be achieved on key issues within a reasonable timeframe
as determined by the Chair or Co-chairs, the Panel shall act by majority vote of its entire
membership & only at meetings called by the Chair, Co-Chairs or by any 5 Panelists.

² **Joint learning** means that there are opportunities for people to learn from trusted and credible sources about the science and technology and to learn about the concerns, perspectives, and needs of all interested and affected parties.

³ **Consensus does not mean** that decisions devolve to the least offensive solutions. If managed skillfully, the process of building consensus can generate a better understanding of alternative perceptions of the problem, identify options for solving the problem that are innovative and have not been considered before, and create more value for all stakeholders involved.

1 D. Minority reports will be part of the NDCAP record.

2
3 E. Roberts Rules of Order will govern all NDCAP meetings.

4
5 **VI. Public Engagement and Transparency**

6 A. All NDCAP meetings will be open to the public.

7
8 B. Comments will be solicited from the public in attendance at least once during the
9 meeting and more often at the discretion of the Chair and Co-Chairs.

10
11 C. Written comments may be submitted at any time. Provisions will be made to solicit and
12 take into account written comments from all interested stakeholders on NDCAP reports. To
13 the extent practical, the NDCAP will explain how comments from the public were
14 considered in written recommendations or reports.

15
16 D. Minutes shall be kept of all NDCAP meetings and will include a record of members
17 present, a complete and accurate description of matters discussed and conclusions
18 reached, and copies of all reports received, issued or approved by the NDCAP. Draft
19 minutes shall be posted on the PSD website within five days of the meeting. Minutes will
20 be adopted by the next scheduled NDCAP meeting.

21
22 E. The records of the NDCAP consist of this Charter, meeting agendas, meeting minutes,
23 reports submitted to or drafted by the NDCAP, studies made available to or prepared by the
24 NDCAP, correspondence related to substantive issues under consideration by the NDCAP.
25 All such records shall be made available to the public on request.

26
27 F. The NDCAP may provide opportunities outside of formal meetings for information
28 sharing and dialogue with stakeholders.

29 **VII. Communication**

30 Whenever feasible electronic mail will be the preferred method of communicating
31 administrative issues with and among NDCAP members.

1 **Appendix B**

2
3 **Nuclear Decommissioning Citizens Advisory Panel**
4 **Advisory Opinion - Second Independent Spent Fuel Storage Installation**
5 **February 25, 2016**
6

7 March 7, 2016

8 Vermont Public Service Board
9 112 State Street
10 Montpelier, VT 05620-2701
11

12 Re: Docket 8300 - Second Spent Fuel Storage Facility at the Vermont Yankee Nuclear Power
13 Station.

14
15 The Vermont Nuclear Decommissioning Citizens Advisory Panel (NDCAP) would like to submit
16 the attached comments ("Advisory Opinion") on Docket 8300 – Second Spent Fuel Storage
17 Facility at the Vermont Yankee Nuclear Power Station.

18
19 NDCAP is the nineteen member panel formed by the Vermont Legislature in 2014 in response
20 to Entergy Corporation's announcement that it would close Vermont Yankee. We recognize
21 that evidentiary hearings are closed; this opinion was finalized after they closed and is offered
22 as part of our legislated mandate: "To advise the Governor, the General Assembly, the agencies
23 of the State, and the public on issues related to the decommissioning of the VYNPS. . . ." (18
24 V.S.A. Section 1701).
25

26 The panel reached consensus on everything in the comments with the exception of Number 3
27 under the Recommendation section on page 3. In the end, two versions of Number 3 were
28 drafted (A and B). The document we are forwarding to you includes both A and B, along with
29 the names of the panel members who supported each version.
30

31 Thank you for your consideration. We appreciate the opportunity to share our thoughts with
32 you.
33

34 Sincerely,

35 Kate O'Connor
36 Chair

37 Enclosure
38

1 **Nuclear Decommissioning Citizens Advisory Panel**

2 Advisory Opinion

3 February 25, 2016

4
5 A Second Independent Spent Fuel Storage Installation Pad Should Be Constructed in the
6 Location Currently Proposed by Entergy Vermont Yankee.

7
8 BACKGROUND:
9

10 Entergy Nuclear Vermont Yankee (ENVY) has proposed an expanded Independent Spent Fuel
11 Storage Installation (ISFSI) at the VY station. This proposal is for a second ISFSI pad to be
12 constructed 30 feet to the west of the existing ISFSI beginning in mid-2016 to facilitate the
13 completion of the transfer of all fuel from the spent fuel pool to the ISFSI by the end of 2020. In
14 December 2015, ENVY announced plans to accelerate the initiation of the fuel transfer process
15 by two years, beginning in 2017.

16 The Nuclear Decommissioning Citizens Advisory Panel acknowledges that dry fuel storage is an
17 acceptable alternative to wet storage and supports ENVY's plans to transfer all spent fuel to the
18 ISFSI by the end of 2020.

19 Consistent with the above, ENVY's Site Assessment Study (SAS), prepared in October 2014 as
20 part of the settlement agreement negotiated with State agencies, stated that

21
22 "...we believe that moving all of the VYNPS spent nuclear fuel into robust dry fuel
23 storage containers on a seismically-hardened Independent Spent Fuel Storage
24 Installation (ISFSI) in the short term is in the best interest of all parties, and that will
25 be our primary focus over the next several years." (SAS, October 2014, page 1)
26

27 ENVY has committed to fund the construction of the second ISFSI pad as designed,
28 procurement of dry storage systems and transfer of the fuel from the spent fuel pool to the
29 ISFSI totaling approximately \$145 million from external credit lines, rather than from the
30 Nuclear Decommissioning Trust Fund.
31

32 ENVY states that it considered several alternative locations for a second ISFSI elsewhere on the
33 VY Station site, including making that second ISFSI a single consolidated storage site for all of
34 VY's spent nuclear fuel (including the fuel now stored on the existing ISFSI pad). However, each
35 of the other potential locations that were evaluated has distinct disadvantages, as compared to
36 the current proposed location. In its pre-filed witness testimony in PSB Docket No. 8300, ENVY
37 states those disadvantages include the potential for increased radiation dose to members of
38 the public and additional aesthetic impacts to neighboring residential properties. In addition,
39 ENVY notes that constructing an ISFSI at another location on the VY Station site would
40 significantly delay the transfer of spent fuel from the spent fuel pool to dry cask storage beyond
41 2020.

On January 29, 2016, the U.S. Nuclear Regulatory Commission (NRC) issued a letter documenting its review of the Post Shutdown Decommissioning Activities Report (PSDAR) and De-commissioning Cost Estimate (DCE) submitted by ENVY. The PSDAR and DCE provided estimated dates for the initiation and completion of major decommissioning activities, including Preparations for Dormancy, Dormancy, Preparations for Decommissioning, Decommissioning, and Site Restoration. These estimated dates were based on various planning assumptions, including assumed dates concerning the removal of spent fuel from the Vermont Yankee site by the U.S. Department of Energy (DOE). After conducting a comprehensive review of the PSDAR and DCE, the NRC staff found, among other things, that: (1) ENVY had adequately described the activities associated with the major decommissioning periods; (2) ENVY's schedule for decommissioning activities is adequate to achieve VY license termination within 60 years of permanent cessation of operations, as required by NRC regulations; and (3) ENVY's DCE was reasonable.

NDCAP is concerned with site restoration, including the timing thereof, a process which will begin after radiological decommissioning is completed and, as described in ENVY's PSDAR, is considered the last phase in the sequence of the overall decommissioning process. The impact of the proposed ISFSI pad on the eventual reuse of the Vermont Yankee site is an issue that is currently being considered and will be addressed by the PSB in Docket No. 8300. Additionally, restoration of the entire Vermont Yankee site cannot be completed until all used fuel is removed by the US DOE. Therefore it is imperative that, separate from other actions, Congress acts to find a solution for the timely removal of used fuel from Vermont Yankee.

RECOMMENDATION:

The Vermont Nuclear Decommissioning Citizens Advisory Panel recommends approval of the construction of a second ISFSI storage pad in the location as proposed by ENVY in its petition for a certificate of public good in Docket No. 8300 to ensure the timely, cost-effective transfer of fuel from wet to dry storage starting in 2017 and completion by the end of 2020, provided that relevant regulatory bodies obtain reliable assurances that:

1. The existence of the Dry Fuel Storage (DFS) casks in the proposed location will not unduly delay the commencement of site restoration,
2. Any site restoration activities that can be conducted while the DFS casks remain in their current and proposed locations will be borne by the Site Restoration Fund and if required supplemented by the owner of the property, and
3.
 - A. The presence of dry fuel storage (DFS) casks in the proposed location will not inhibit demolition or restrict the methodologies available for demolishing the Reactor Building and/or structures adjacent to the stored spent fuel such that site restoration will be unduly delayed. In the event the presence of the DFS casks will

1 cause an undue delay in the demolition of the reactor building and/or structures,
2 ENVY or any subsequent owner will commit to remedying the delay in a manner that
3 does not encumber the decommissioning trust or site restoration funds, and which
4 will not burden taxpayers beyond recoverable costs from the U. S. Department of
5 Energy.
6

7 Approved by: Chris Campany, Windham Regional Commission; Diane Becker, State of New
8 Hampshire; Dr. William Irwin, Vermont Department of Health; Derrik Jordan, Appointee of
9 Speaker Shap Smith; Trey Martin, Agency of Natural Resources; Jim Matteau, Appointee of
10 Senate President John Campbell; Patricia Moulton, Agency of Commerce; Kate O'Connor,
11 Appointee of Gov. Peter Shumlin.

- 12
- 13 B. The presence of Dry Fuel Storage (DFS) casks in the proposed location will not inhibit
14 demolition or restrict the methodologies available for demolishing the Reactor Building
15 and/or structures adjacent to the stored spent fuel such that site restoration will be unduly
16 delayed beyond the schedule provided in the Vermont Yankee PSDAR. Under NRC
17 regulations, in the event the presence of the DFS casks will cause an undue delay in the
18 demolition of the Reactor Building and/or structures, ENVY, or any subsequent owner of the
19 property, will be required to update the PSDAR and DCE as well, if there are resulting
20 significant increases in costs. ENVY or any subsequent owner of the property will be
21 responsible for providing any additional funds needed to maintain the site consistent with
22 applicable regulations in effect at the time, including, for example, funds or damages
23 recovered from the U.S. Department of Energy.
24

25 Approved by: David Andrews, Representing current and former employees at Vermont
26 Yankee; Jack Boyle, Entergy Vermont Yankee; Martin Langeveld, Appointee of Gov. Peter
27 Shumlin; Paul Paradis, Entergy Vermont Yankee; Steve Skibniowsky, Town of Vernon.

28

29 Furthermore, because full site restoration cannot be completed until the removal of the used
30 fuel from the site, NDCAP further recommends that Vermont Congressional delegation take
31 immediate legislative actions that will facilitate DOE acceptance and removal of spent fuel from
32 Vermont Yankee and the State of Vermont, as expeditiously as possible.

33 —END—
34
35
36
37
38
39

1 **Appendix C**

2 **Citizen Members Letter to Nuclear Regulatory Commission**
3 **Re: Advance Notice of Public Rulemaking**

4
5 Kate O'Connor
6 Vermont Nuclear Decommissioning Citizens Advisory Panel
7 P.O. Box 6206
8 Brattleboro, VT 05302
9 March 7, 2016

10
11 Secretary
12 U.S. Nuclear Regulatory Commission
13 Washington, DC 20555-0001
14 ATTN: Rulemakings and Adjudications Staff
15 Re: Docket ID NRC-2015-0070

16
17 We are writing as the six citizen members of the Vermont Nuclear Decommissioning Citizens
18 Advisory Panel. Vermont's nineteen member panel was formed by the Vermont legislature in
19 2014 in response to Entergy Corporation's announcement that it would close the Vermont
20 Yankee Nuclear Power Station in Vernon, Vt.

21 We are pleased that the Nuclear Regulatory Commission has begun the process of developing
22 rules for the decommissioning of nuclear power reactors and appreciate the opportunity to
23 comment.

24
25 We believe that having clear and well defined decommissioning rules will be beneficial to the
26 plant licensees and all stakeholders – including the public. It is our hope that the rules will
27 recognize the genuine interest the public has in playing a constructive role in the
28 decommissioning process. Communities that host nuclear power plants face long-term health,
29 safety, environmental, and economic challenges when a plant shutters.

30 We write from the public's perspective and the comments we provide are based on our
31 experiences and observations to date with the decommissioning of Vermont Yankee.

32 **Emergency Preparedness Requirements for Decommissioning Power Reactor Licensees**

33 A tiered approach to emergency preparedness that acknowledges the risks that a nuclear plant
34 poses to public health and safety should be adopted. To that end, all emergency response and
35 security requirements (including the 10-mile Emergency Planning Zone and Emergency
36 Response Data System) should be kept in place until all of the spent nuclear fuel stored at the
37 site has been moved into dry casks. As long as the fuel is in the pool there remains a risk to
38 public health and safety making emergency off-site response critical. When the fuel is

transferred from the reactor and the risk of radiological release is reduced the emergency response requirements on and off-site can be adjusted accordingly.

General environmental surveillance for radiological and non-radiological materials should continue. The licensee should be required to work collaboratively with the host state to put in place a monitoring program that ensures compliance with all state and federal regulations until final decontamination is complete.

Current Regulatory Approach for Decommissioning Power Reactor Licensees

Decommissioning method

SAFSTOR should be limited to a period of 10 years, not 60 years, with exemptions only in instances where one or more reactors in a multi-reactor complex is placed in SAFSTOR until the entire complex can be decommissioned, in any case no later than 10 years after the shutdown of the last reactor. The purpose of the 10-year period should only be to augment radiological safety for decommissioning workers, and in no instance should SAFSTOR be permitted in order to allow decommissioning trust funds to grow to sufficient amounts based on investment in securities markets. If decommissioning trust funds are insufficient to begin full decommissioning activities after 10 years of SAFSTOR following the retirement of the last reactor at any complex, then the licensee must supply sufficient funding to make up the difference.

Prompt decommissioning should always be the preferred method. It reduces the impact on the local economy, as jobs are changed and phased out on a sloping curve instead of a cliff as a site is prepared for potential reuse sooner and allows for the retention of institutional memory that would contribute to a more efficient, safer process.

Post-Shutdown Decommissioning Activities Report

The Post-Shutdown Decommissioning Activities Report (PSDAR) and amendments to the report should be formally approved by the NRC. Approval should include a process that allows for input from the state where the facility is located and the host community (defined as those where nuclear facilities are sited, and include all those within the operational facility's 10-mile Emergency Planning Zone).

An approved PSDAR would set clear expectations for the licensee and would give the public confidence that the licensee will be held accountable for the schedule, cost, and cleanup commitments it makes in the plan.

Public opportunities to review and provide comments on the decommissioning process

The Vermont Nuclear Decommissioning Citizens Advisory Panel has played an essential role in providing a forum for public engagement in the decommissioning of the Vermont Yankee plant. The panel has allowed for the dissemination of information from all parties involved; allowed the public to express its views and concerns; provided a forum for open and transparent discussion; and has established a working relationship between parties who might not otherwise have worked together.

We would recommend a community advisory panel to all communities facing a plant decommissioning. However, we do not believe public engagement panels should be mandated by the NRC since such panels would be formed by the licensee. Instead, the NRC should recommend that advisory panels be formed by the states, using past and present state panels as models. The licensee should be required to have one or more representatives on the advisory panel and provide the financial resources necessary for the panel to run effectively. Entergy's involvement on the Vermont panel has been important to our success.

The Vermont Nuclear Decommissioning Citizens Advisory Panel was established as an independent body by the Vermont legislature, not the licensee. This has worked well for us and we believe the host state and local community, in consultation with the licensee, should have the flexibility to establish a panel that will best serve their needs.

We want to stress that a community advisory panel should supplement, not take the place of the NRC's obligation to seek public comment or engage with the public through meetings, hearings or other means.

Decommissioning Trust Funds

Decommissioning trust funds (DTF) should only be used for radiological decommissioning and, if sufficient funds remain available following that, subsequent site restoration. Draining the fund for non-radiological expenses delays decommissioning, which in turn delays restoration and re-use of the site. The rules should clearly define the appropriate – and inappropriate – uses of the fund.

The use of the fund for non-radiological expenses will have an impact on Vermonters and the decommissioning of Vermont Yankee. Currently, license termination is scheduled for 2073, a timeframe dictated in part by the amount of money in the DTF. (The fund balance as of December 31, 2015 was \$595,443,076. The estimated cost of decommissioning is \$1.242 billion and Entergy plans to use \$225 million from the fund for long-term spent fuel management.)

Using the funds for non-radiological expenses also means the funds are not available for reinvestment, which in Vermont is the only way the fund grows. Because Vermont Yankee is a merchant plant and Entergy is not making payments into the DTF, the fund's growth depends on continued growth in the securities market, which is subject to volatility and potentially debilitating periods of decline rather than growth.

1 We believe there should be transparency in how the funds are used. Therefore, the licensee
2 should be required to provide thirty-day notice before funds are withdrawn and provide a full
3 accounting of the purpose of the expenditures.

4
5 Thank you for the opportunity to comment. As the rulemaking moves forward we urge the NRC
6 to provide opportunities for host states and communities to be actively and substantively
7 engaged in the process. We hope this will include public hearings in the impacted
8 communities. Through our work on the Vermont Nuclear Decommissioning Citizens Advisory
9 Panel we have seen firsthand the benefits of involving the public and we are ready and willing
10 to help the NRC facilitate constructive public engagement in any way we can.

11 Sincerely,

12 Kate O'Connor, *Chair*
13 *Appointed by Vermont Gov. Peter Shumlin on behalf of:*
14 *Martin Langeveld, Vice Chair*
15 *Appointed by Vermont Gov. Peter Shumlin*

16
17 Rep. David Deen
18 *Appointed by Vermont House Speaker Shap Smith*

19
20 Derrick Jordan
21 *Appointed by Vermont House Speaker Shap Smith*

22
23 Jim Matteau
24 *Appointed by Vermont Senate President Pro Tempore John Campbell*

25
26 Jim Tonkovich
27 *Appointed by Vermont Senate President Pro Tempore John Campbell*

28
29 **Appendix D**

30
31 **Nuclear Regulatory Commission**
32 **Public Meeting on the Advance Notice of Proposed Rulemaking**
33 **March 15, 2016 – NRC Headquarters, Rockville, Maryland**
34

35 Remarks by Kate O'Connor, Chair, Vermont Nuclear Decommissioning Citizens Advisory Panel

36
37 Thank you for the opportunity to take part in this meeting. As was noted, I am chair of the
38 Vermont Nuclear Decommissioning Citizens Advisory Panel.

1 We are pleased that the Nuclear Regulatory Commission has begun the process of developing
2 rules for the decommissioning of nuclear power reactors and appreciate the opportunity to
3 comment.

4
5 By way of background the Vermont Nuclear Decommissioning Citizens Advisory Panel is a 19
6 member panel established by the Vermont legislature in 2014 in response to Entergy's
7 announcement that it would close the Vermont Yankee Nuclear Power Station in Vernon, Vt.
8 The panel includes representatives from Vermont state government, Entergy, the states of NH
9 and MA, the host town, Vernon, VT and six citizen members of which I am one having been
10 appointed by the governor of Vermont.

11
12 You have received written comments from the six citizen members and will receive comments
13 separately from the State of Vermont, Entergy and other members of the panel.

14
15 The citizen members' comments, which I will speak to today reflect the public's desire to play a
16 constructive role in the decommissioning process and their desire to have the states and host
17 communities have a role in the process as well. After all, it is the communities that host nuclear
18 power plants that face the long-term health, safety, environmental, and economic challenges
19 when a plant shutters.

20 As I said, you have received comments from the citizen members of the panel that touch upon
21 the issues that directly impact the public. Today, I will focus on one of those: public
22 participation.

23 In the Advance Notice of Proposed Rulemaking, you ask if community engagement panels
24 should be required by the NRC. The 19 members of the Vermont panel come from different
25 perspectives and have had different experiences, but I think any panel member you ask will say
26 that the Vermont panel has played an essential role in providing a forum for public engagement
27 in the decommissioning of Vermont Yankee. The panel has allowed for the dissemination of
28 information from all parties involved; allowed the public to express their views and concerns;
29 provided a forum for open and transparent discussion; and has established a working
30 relationship between parties who might not otherwise have worked together.

31 While we agree on the importance of a panel, we might disagree on how it should be formed,
32 so I will speak from the perspective of the citizen members.

- 33 • We would recommend a community advisory panel to all communities facing a plant
34 decommissioning. However, we do not believe community engagement panels should
35 be mandated by the NRC since such panels would be formed by the licensee. Instead,

1 the NRC should recommend that advisory panels be formed by the states, using past
2 and present state panels as models. The NRC should require the licensee to have one or
3 more representatives on the advisory panel and provide the financial resources
4 necessary for the panel to run effectively. Entergy's involvement on the Vermont panel
5 has been important to our success.

- 6 • The Vermont panel was established as an independent body by the Vermont legislature,
7 not the licensee. This has worked well for us and we believe the host state and local
8 community, in consultation with the licensee, should have the flexibility to establish a
9 panel that will best serve their needs.

- 10 • I want to stress that a community advisory panel should supplement, not take the place
11 of the NRC's obligation to seek public comment or engage with the public through
12 meetings, hearings or other means.

13 It is important to recognize that the public's goal is to see a safe decommissioning that will lead
14 to license termination and ultimately reuse of the site.

15 I want to thank you again for the opportunity to be here today. As the rulemaking moves
16 forward I urge you to provide opportunities for host states and communities to be actively and
17 substantively engaged in the process. I hope this will include public hearings in the impacted
18 communities. The Vermont Nuclear Decommissioning Citizens Advisory Panel is ready and
19 willing to help the NRC facilitate constructive public engagement in any way we can.